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ABSTRACT

This guide describes a number of models for student mentoring programs at the graduate level, their distinctive and innovative features, and considerations in developing a mentoring program. An introductory section looks at definitions of mentors and mentoring, and discusses the rationale for developing such programs for graduate students. Subsequent sections describe five programs designed to improve the graduate experience for both students and faculty. These include: (1) the Syracuse University (New York) Future Professoriate Project which includes faculty mentor seminars, a teaching associateship, and Certificates in University Teaching; (2) the University of Michigan graduate school program, which includes departmental visits, financial support, student group discussions, a publication concerning the doctoral student's experience, and the Mellon Graduate Education Improvement Project; (3) the Wayne State University (Michigan) program which includes annual meetings with newly-admitted doctoral students, guidance for faculty members, mentoring for minority students, faculty-student research projects, a research mentoring program for new faculty, and outstanding mentor awards; (4) the University of California at Berkeley program which provides assistance to mentors and advisors, encourages help-seeking, offers focus groups and monthly meetings, monitors academic advising, and provides dissertation- and proposal-writing workshops; and (5) the California State University at Fresno's institutionalization of faculty mentoring. A final section outlines activities, initiatives, and programs for departments, faculty, and students. (MSE)

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A CONVERSATION ABOUT MENTORING: TRENDS AND MODELS

COUNCIL OF GRADUATE SCHOOLS

A Conversation About Mentoring: Trends and Models

Nancy A. Gaffney, Editor

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FOREWORD

There are several models that describe the way students and faculty members interact in graduate programs. In one, a master-apprentice relationship exists in which the student is permitted to participate in the research activities of the faculty; in another, the student is expected to develop an independent research project and convince a faculty member to act as a sponsor. In still another model, students become members of teams, each working on one part of a complex problem conceived and directed by a faculty member.

All of these models describe the framework within which graduate research takes place, but give little or no indication of a faculty responsibility that goes beyond the direction of research and program planning. Recently the role of faculty as guides or mentors for their students has become a major topic of discussion in the graduate community. There is a growing understanding that a supportive environment in graduate school is not incompatible with high academic standards. Most faculty members have always known this, but enough have not to cause some graduate schools to begin to address this issue in very direct ways.

In this volume, we relate the outcome of a meeting at which several institutions participated in a conversation about mentoring. A number of different programs are described, all of them designed to improve the graduate experience for students and faculty. We thank Kay Hancock, who listened to the conversation and wrote this document. We also thank TIAA-CREF, who generously supported this project.

Jules B. LaPidus
President, CGS
Spring 1995

INTRODUCTION

mentor \ 'men`to( )r, \ n -s [after *Mentor*, tutor of Telemachus in the Odyssey of Homer] 1 : a close, trusted, and experienced counselor or guide 2 : teacher, tutor, coach	ad`vis`er *also* ad`vis`or \ n -s 1 : one that gives advice; *specif* : one designated to advise students (as in the choice of studies, vocational preparation, or the conduct of research) or to supervise a student organization or activity

Mentor, as the dictionary definition indicates,[1] appeared first in Greek mythology. In Homer's *Odyssey*, Mentor was Telemachus's surrogate father and counselor during the absence of Odysseus. Mentor guided, protected, and educated Telemachus, introduced him to other leaders and prepared him to assume his own leadership responsibilities. When Athena wished to advise Telemachus, she took the form of Mentor, thereby imbuing him with godlike qualities.

Modern-day mentoring of graduate students is equally challenging. According to a position paper developed and adopted by the Graduate Council of the University of Arizona, "mentoring is distinct from advising because it becomes a personal relationship. It involves professors acting as close, trusted and experienced colleagues and guides....It recognizes that part of what is learned in graduate school is not cognitive; it is socialization to the values, norms, practices, and attitudes of a discipline and university; it transforms the student into a colleague. It produces growth and opportunity for both the mentor and the student."[2]

To be a graduate student mentor is to be many things. In his 1990 address to the Western Association of Graduate Schools, Morris Zelditch summarized the multiple roles mentors play: "Mentors are advisors, people with career experience willing to share their knowledge; supporters, people who give emotional and moral encouragement; tutors, people who give specific feedback on one's performance; masters, in the sense of employers to whom one is apprenticed; sponsors, sources of information about and aid in obtaining opportunities; models, of identity, of the kind of person one should be to be an academic."[3] When the ideal is realized, "mentoring is a comprehensive effort directed toward helping a protégé develop the attitudes and behaviors (skills) of self-reliance and accountability within a defined environment."[4]

Graduate students confirm the validity of these definitions. Women graduate students participating in a workshop on mentoring at the University of Minnesota were asked the question: "How would you describe ideal mentoring relationships?" They responded, "Mentoring relationships should be mutually respectful, mutually beneficial and mutually valuable, with the mentor willing to supply both academic information and emotional support and the mentee able to respond as an equal. Students want the following things from their mentors: information (articles, books, conferences, grants, etc.),

help with networking and goal setting, genuine concern, respect for protégé's goals, encouragement as well as challenge, listening and advising, emotional and intellectual support, and acknowledgment of accomplishments."[5]

Harking back to Mentor and Telemachus, a doctoral student at Michigan State University writes, "It is my belief that faculty mentors *are* 'parents' in a sense—our intellectual and professional parents. Like our biological parents, the experience and example of faculty mentors should aid and inspire us as we make our way through life."[6]

These definitions and expectations give rise to legitimate questions and concerns. Must mentors be superhuman? Can busy faculty members perform all of the mentoring roles in relation to all of the students they advise? Do students in fact need multiple mentors? To fulfill their role as mentors, faculty members must receive institutional guidance, support, and rewards. Universities, graduate schools, and departments all can play prominent parts in fostering mentorship among faculty members. They also can offer programs that supplement efforts by individual faculty members to assist students in their progress toward the degree and in their development as professionals.

A number of universities have instituted programs to encourage and reward mentoring. Their approaches vary and provide diverse models for fostering more effective mentoring efforts in the graduate community. From the discussion of each program's experiences, insights, and understanding, elements of effective mentoring programs can be identified.

SYRACUSE UNIVERSITY: THE FUTURE PROFESSORIATE PROJECT

Building on the foundation of a nationally recognized Teaching Assistant Program, the Graduate School at Syracuse University developed a plan to enhance the TA Program and prepare teaching assistants not only to work more effectively with undergraduates but to become future members of the professoriate. Funded by a nearly one million dollar three-year award from the Fund for the Improvement of Postsecondary Education of the United States Department of Education and The Pew Charitable Trusts, the Future Professoriate Project comprises three program elements:

1. a series of Faculty Teaching Mentors seminars designed to assist faculty in preparing graduate students for college teaching careers;

2. a new, higher level, pre-doctoral teaching appointment at Syracuse titled the teaching associateship; and

3. a Certificate in University Teaching to be awarded jointly by the Graduate School and academic departments to those teaching assistants who complete a formal program of professional development designed to provide the requisite skills, knowledge, and experiences expected of new Ph.D.'s seeking faculty positions.

The Faculty Teaching Mentors seminars are designed to support an expanding group of faculty members who are committed to preparing advanced graduate students for teaching careers and to assist them in implementing the goals of this project in their respective disciplines. Syracuse faculty members have responsibilities for the scholarly and professional development of graduate students at all levels—Teaching Assistants (TAs), Teaching Associates, and Teaching Associates who are pursuing the Certificate in University Teaching.

Faculty members provide Teaching Assistants with substantive departmental training, carefully supervise their first basic teaching assignments, give them ongoing training and mentoring, and do formal evaluations of their work. Specially qualified TAs with at least one, but usually two years of teaching experience then may be appointed as Teaching Associates. Associates receive more independent teaching assignments and normally have primary responsibility for teaching a course under the supervision of a Faculty Teaching Mentor.

If Teaching Associates choose to fulfill the requirements for a Certificate in University Teaching, which is the capstone to the Future Professoriate Project, they will pursue a program of professional development that results in the documentation of their preparation to assume a teaching position at a college or university. Among other

requirements, students seeking a certificate must select a faculty member as a Teaching Mentor and work closely under that person's supervision throughout the teaching associateship; have their teaching observed and formally critiqued by the Faculty Teaching Mentor; and develop a professional portfolio that contains evidence of their scholarly accomplishments in both research and teaching.

Preparation for this rigorous role as a Faculty Teaching Mentor is the focus of Syracuse's Teaching Mentors seminars. An annual, three-day intensive summer workshop held at Syracuse University's Minnowbrook Conference Center in the Adirondack Mountains is the inaugural event in each year's seminars. Focusing on "What it Means to Be a Mentor in Teaching and How You Do It," this conference sparks lively dialogue about the nature of graduate education and how to best prepare tomorrow's faculty for their professional roles.

To sustain on campus the conversation begun at the summer workshop about how to prepare graduate students to teach, the Graduate School schedules four follow-up seminars during the academic year, two in the fall and two in the spring. Led by Syracuse faculty members who are recognized for their success in teaching and TA supervision and by nationally renowned experts, the seminars deal with a variety of issues, e.g., mentoring, how to put together a professional portfolio, what teachers should know about how students learn, and how administrators of non-Ph.D. granting institutions view the preparation of future faculty by research universities. From small beginnings—only three departments initially—the Future Professoriate Project expanded gradually over several years to include almost every major Ph.D. program at Syracuse University by the end of May 1994. Before a department could implement the project, the Graduate School required it to take a full year to develop a plan for how the program would be tailored to the context of its discipline. Each department joining the project appoints faculty representatives to participate in the Teaching Mentors seminars; those representatives are selected for their teaching skills by peers in the department. Approximately 150 faculty members are now designated as Faculty Teaching Mentors.

As a faculty-led effort to improve faculty skills in TA supervision and evaluation, the Faculty Teaching Mentors seminars have four objectives: (1) to establish an interdisciplinary forum for the development of ideas to prepare the future generation of the professoriate; (2) to encourage faculty in related disciplines to work together to explore common approaches to the preparation of graduate students for teaching; (3) to provide faculty with specific strategies and methodologies to establish more effective teaching assistant and teaching associate training within the context of their disciplines; and (4) to establish a heightened presence of faculty in each department on the campus to whom graduate students may turn for guidance about teaching issues.

Insights

Insights gained from the Teaching Mentors seminars include the following:

- Faculty have asked for help in learning specific skills and strategies to become effective teaching mentors.

- Faculty members have the knowledge base to help their peers become better mentors and institutions must provide the vehicles for sharing that knowledge.

- There is a need for both discipline-based and interdisciplinary forums regarding mentoring practices.

- Graduate students should have the *option* of selecting separate mentors for research and teaching even if not all students want this freedom and not all faculty members accept this role division.

- The Graduate School must be an advocate for high standards of departmental practice by defining criteria for effective advisement and mentoring, e.g., conscientious advising at the outset of a graduate student's program, annual reports on a student's progress, efforts to teach mentoring practices in teaching.

- Rewards and recognition are important. Although most faculty members become Teaching Mentors largely for the intrinsic rewards, the summer workshop and follow-up seminars provide a welcome forum to discuss important issues related to graduate education, teaching, and student learning.

One crucial lesson learned from the Future Professoriate Project is that faculty want to hear and learn from other faculty; successful teaching mentor programs must therefore be led by the faculty rather than the teaching center. Although the Syracuse University Graduate School developed the broad framework for the project, departments have wide latitude to develop the program creatively within the context of their disciplines. Some departments, for example, select only a limited number of students as Teaching Associates; others permit all interested students to participate. Similarly, mentoring practices vary among departments; for example, one department has found success with small group mentoring, i.e., one faculty member works with three or four graduate students on teaching issues.

By beginning and sustaining a conversation among faculty members about how to prepare graduate students to be better teachers, Syracuse University's Future Professoriate Project is refining graduate education and greatly enhancing the role of faculty members in preparing graduate students for teaching. "A long-term investment in the Syracuse faculty is the key aspect of this plan," states the project prospectus. "A fac-

ulty better prepared to train, supervise, and evaluate TAs will have the opportunity to influence thousands of graduate students over the coming decade. In turn, when Syracuse TAs become faculty members elsewhere, they will be able to emulate their former teaching mentors as they work with new generations of graduate students, resulting in a broadened national effect."

UNIVERSITY OF MICHIGAN GRADUATE SCHOOL EFFORTS TO ENHANCE MENTORING

Efforts to explore issues related to advising and mentoring and to foster programs that promote good practices in graduate education take several forms at the University of Michigan's Horace H. Rackham School of Graduate Studies. Departmental visits, financial support of programs, conversations with student groups, and a publication are designed to encourage conscientious advising, counseling, and mentoring of graduate students by departments and faculty members.

Departmental Visits

Each year Rackham deans visit eight to ten departments. Factors motivating these visits are (1) student reports that they are made to feel inadequate, incompetent, belittled, treated unfairly or inequitably; (2) concerns expressed about a graduate program by faculty members or the dean and (3) issues raised in a review of the data, such as high attrition rates, extended time to degree, admissions/enrollment fluctuations.

To prepare for this visit, graduate school administrators have a two-hour meeting with students. A letter is then sent to the program chair setting forth the substantive issues that will serve as a background for discussion. During the visit they meet with both students and faculty in order to try to learn about the graduate program in detail and explore ways that the graduate school and department can cooperate to strengthen the program.

After the visit Rackham sends the department chair and appropriate dean a letter summarizing the visit. The Graduate Dean also sends elected faculty, serving on the Executive Board, a copy of the initial letter to the department, which stated the background issues. Involving the Executive Board provides an opportunity for further discussion of these issues by a wider group of faculty members.

Financial Support of Programs

The Research Partnership Program, sponsored jointly by the Dean of the Graduate School and the Vice President for Research, funds generous year-long faculty research partnerships between faculty and students. Initiated with the aim of improving the scholarly and research environment for both faculty and graduate students, the program has two purposes: (1) to strengthen the research, scholarship, and creative activity of faculty by providing them funds for graduate student support, and (2) to enhance the quality and character of the academic interaction between individual faculty members and graduate students by focusing on the mentoring relationship.

Four conditions for this research partnership greatly increase the likelihood of producing future scholars:[7]

1. Freedom of choice regarding the content of the scholarly endeavor. Graduate students should be encouraged to select research topics of intellectual interest to them.

2. Autonomy regarding the structure of the scholarly endeavor. Graduate students should be required to become investigators in their projects, rather than merely serving as research assistants to faculty members.

3. Mentorship. Faculty members should respect students as sources of ideas and insights, offer them timely and constructive responses to their work, and demonstrate a concern for their professional welfare.

4. Assistance in Becoming a Professional. Graduate students should gradually be granted full access to professional life through a process of socialization that includes being (a) introduced to the ethical standards of the discipline, (b) accompanied to professional conferences and symposia, (c) encouraged to present papers to colleagues on campus and, if appropriate, at regional and national meetings of their disciplines, and (d) assisted in publishing their work.

Recipients are selected from a rigorous competition in which only 19 percent of the proposals are funded. Although the faculty member receives the award, he or she must use the funds *solely* for the graduate student's tuition and stipend. Successful proposals must demonstrate, among other things, that they will create and sustain a mentoring relationship that will enrich the scholarly work of both the student and the faculty member.

In an evaluation of the Research Partnership Program undertaken after it had been in existence for several years, responses to anonymous questionnaires sent to both faculty member and graduate student awardees revealed that one of the most important consequences of the program was faculty development. One faculty member noted that he had never worked so closely with a graduate student as under this program although he had supervised many excellent students. Another said that the program legitimized the mentor-student relationship (as opposed to a "sink-or-swim" approach) in a way that affected his entire outlook on graduate education. Respondents also reported that this program enhanced the graduate student's professional growth; students treated as co-investigators and equals felt that they were part of the research community for the first time.[8]

Block Grant Program. Under this program the Dean of the Graduate School gives departments funds that they can use flexibly. Of the total money available for block grants the dean reserves 25 percent to give to departments interested in pursuing innovative approaches to various aspects of graduate education. Such departments may have a number of non-traditional students or they may be revising their graduate programs to

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help students complete their degrees more quickly, packaging support money to encourage shorter times to degree, working to reduce attrition, and developing programs to foster mentoring. In the future the Block Grant Program may be redesigned to accomplish more of the objectives now supported by these discretionary funds.

Talking with Student Groups

Meeting with student groups is another way for the Graduate School to learn how departments work and what the patterns of advising/mentoring are. The Predoctoral Fellows group meets four times a semester and the Graduate Student Forum, a group of elected representatives, meets twice a year.

Faculty are invited to these sessions to instruct students on the skills and issues of importance to their future. Among the topics they discuss are how to prepare a curriculum vitae; how to give a job talk; what takes place on an interview/job visit; how to negotiate teaching load, space/lab equipment/research support and research leave; the value of attendance at professional conferences; the importance of serving as student representatives on departmental and faculty governance committees; ethical issues such as the order of authors, the selection of data; the importance of choosing a dissertation thesis that is not high risk; writing skills and writing in the discipline.

Publication: Enhancing the Academic Environment for Doctoral Students

Based on ideas derived from conversations with faculty and graduate students; recommendations from the Council of Graduate Schools and the American Association of Universities; the book by William G. Bowen and Neil L. Rudenstein, *In Pursuit of the Ph.D.*; and a University of California at Berkeley study of conditions under which graduate students complete the degree, the Rackham School of Graduate Studies published a booklet of guidelines, *Enhancing the Academic Environment for Doctoral Students.* Included in the publication are policies and guidelines to help define the expectations of students and the responsibilities of faculty for doctoral education.

Topics covered in the booklet are departmental and program guidelines; program advising; the prospectus; the completion plan; the dissertation chair and committee with attention to considerations for the candidate, the dissertation adviser, the cognate member, the dissertation committee members; and dissertation support groups.

By publishing this booklet for faculty and graduate students, the Graduate School sought to contribute to program quality; improve student morale; limit attrition; shorten the time it takes to complete the degree; and provide doctoral programs with examples of good practice, which the Graduate School can use in advising faculty and students when serious questions and concerns arise.

Purpose of Graduate School Initiatives

All of these efforts by the University of Michigan Graduate School have the objective of ensuring that graduate students will emerge from their experience as self-confident scholars who are well trained in the discipline and capable of fulfilling the full range of professional responsibilities.

Mellon Graduate Education Improvement Project

Creating an environment that fosters and facilitates mentoring of graduate students is one of the intended consequences of the Andrew W. Mellon Foundation's five-year program to improve graduate education in the humanities and social sciences. Aimed at reducing student attrition and lowering the number of years that the typical student spends working toward the doctorate, the program started in the 1991-92 academic year in 48 departments at ten institutions, one of which is the University of Michigan.

Each of the participating universities was to use the $600,000 Mellon grants to make improvements in four or five departments in the humanities and social sciences. Those departments were to seek to increase the percentage of entering graduate students who earn their doctoral degrees, reduce the length of time it takes students to earn those degrees, and improve the general quality of education.

Insights from Earlier Mellon Foundation Programs

From its program of portable grants—Mellon Graduate Fellowships in the Humanities—established in 1983, the foundation gained insights that helped shape the Graduate Education Improvement Project: (1) Fellowships alone did not expedite a student's time-to-degree; recipients of the Mellon Graduate Fellowship in the Humanities did not finish earlier than their departmental colleagues who held teaching assistantships. (2) Cohorts of students in smaller departments had a higher completion rate than those in larger departments[9].

Size seemed to be related to the way departments viewed faculty responsibilities in relation to students. In some larger departments a faculty attitude of passivity and distance from graduate students appeared to extend time-to-degree, whereas an academic culture that fostered faculty involvement with students facilitated progress toward the degree and lowered attrition rates.

Faculty responsibilities that the Mellon Foundation seeks to emphasize are threefold:

- assure the intellectual quality of a student's work
- enable the student to progress effectively through the program

- facilitate the student's success in the job market and future career, i.e., socialize the student into the profession.

To encourage faculty members to assume these responsibilities it may be necessary to change the academic culture of a department. From its own experience and that of other foundations, the Mellon Foundation drew three conclusions: (1) Multi-year portable entry-level fellowships do not encourage fundamental changes in the structure of graduate programs. (2) Even a focus on these responsibilities at the institutional level is not sufficient to effect change. (3) Full engagement of faculty at the departmental level is the key to changing the academic culture of an institution.

Departmental Proposals to Improve Graduate Education

Incorporating these findings, the Mellon Foundation designed a program that was institutionally based, departmentally oriented, and specific about its goals. The program required departments to submit proposals that addressed specific problems identified by the faculty and committees of graduate students. The proposals had to meet the objective of improving outcomes for all entering students, not just those funded. Money from the foundation was to be used *strategically*, for example, to provide summer stipends to students who have just completed qualifying examinations, to assist students in preparing dissertation topics, and to provide support for students at the dissertation-writing stage.

By conducting the self-studies required for the Mellon proposals, departments identified structures and practices that caused students to lose momentum or spend time on non-program-related tasks. Having identified impediments to students' progress, they were able to propose creative ways to eliminate them without adversely affecting learning or growth.

Once convinced of the department's commitment to its proposed innovations, the Mellon Foundation provided flexible funds so that the department could implement those changes in program structure and create appropriate incentives for its students.

Insights gained from developing departmental proposals in combination with the Mellon funding they received have empowered departments to change their own cultures. The program has galvanized faculty members who felt powerless to change unexamined customs into an enthusiastic, self-evaluating group with forward-looking momentum.

Effects of Mellon Program at the University of Michigan

Quantitative assessments of the program's impact will become available after it has been in effect for five or more years, but qualitative reports already describe valuable changes. At the University of Michigan the first effects of undertaking departmental assessments, preparing proposals for change, and implementing those proposals include the following:

- the hortatory influence of focusing attention on time-to-degree
- graduate student involvement in discussing the nature of a program and changes needed
- changes in curriculum, streamlined course work, research seminars
- inclusion in faculty leave requests of plans for how advanced graduate students would be assisted in the faculty member's absence
- a heightened awareness of mentorship issues
- a reduction in the number of entering students in some programs in order to provide the admitted students with more adequate support and mentoring.

Specific changes in curriculum included altering the nature of qualifying examinations so that they have become "ramps" rather than "hurdles"; closer monitoring of graduate student progress; better defined timetables, structures, and expectations; and the introduction of dissertation seminars. Financial support patterns were redesigned to provide assistance at certain critical times such as in the period after the qualifying examination when students often lose momentum and in the final stage of dissertation writing; support at these junctures can help students proceed toward the degree in a timely fashion.

Involvement of departmental faculty in developing a proposal for the Mellon funds and implementing it yielded a variety of benefits:

- Departments gained a heightened awareness of what they were doing in their programs.
- Through their efforts to get the grant, departments claimed ownership of the goals they set and the changes they proposed.
- The process fostered interaction and self-examination by providing an incentive for faculty members to talk with each other and with graduate students about what truly impedes a student's progress toward the degree.
- Departments had to set goals and determine the process by which those goals would be fulfilled.
- Departments developed a sense of group responsibility for graduate student progress and socialization into the profession, as well as for academic standards and transmission of a body of knowledge.

Insights

Early reports from universities with departments involved in the Mellon Graduate Education Improvement Project uniformly confirm that the project has improved the environment for mentoring at their institutions. Some quotations from those reports describe the change being effected:

> "One of the most welcome results of the Mellon Fellowship Program...can be seen in changed faculty and student attitudes....The changes that we are barely beginning to see are more qualitative shifts in departmental culture itself, particularly with regard to a closer professional relationship between students and faculty, and in a more firmly established and supportive system of mentoring...."

> "The old Graduate Faculty was famous for its hauteur and expectation that all initiative rested with the student....Most critical, in our estimate, is the change in the culture of these departments, away from the...sink or swim on your own attitude. There is a sense of mutual commitment, of mutual entraining, as faculty, more willing to experiment, have become involved with students more willing to go after what they want."

Another report stated that Mellon-supported activities such as dissertation prospectus workshops, summer seminars and colloquia provide a calendar of expectations for students and foster participation, communication, and shared goals. Greater interaction and interconnection between all members of a department has resulted.

The Mellon Program has not imposed or required mentoring. It is a response by faculty members who have been challenged to set goals. Changes in departmental cultures that create an improved mentoring environment flow from an awareness of problem areas. Awareness leads to engagement, enthusiasm, and accountability. Faculty members who are aware of impediments to student progress take pride in finding creative ways to transform roadblocks into ramps leading students expeditiously to the next level. Mentoring is fostered by asking faculty members to set goals and to be involved and engaged in designing and redesigning courses and programs of study in their departments. In so doing they will become aware of their departmental responsibilities for guiding students successfully through the graduate program.

FOSTERING MENTORING AT WAYNE STATE UNIVERSITY

Surveys conducted by the Wayne State University Graduate School in 1990 revealed that doctoral students in humanities and social science departments were taking much longer on average to complete their degrees than doctoral students in science departments. These surveys also revealed that one of the persistent deficiencies in humanities and social science departments was the absence of adequate advising and mentoring arrangements.

In response to these findings the Wayne State Graduate School has taken several initiatives to promote graduate mentoring. As a general strategy, all three graduate deans talk about the concept of mentoring and encourage its practice whenever they have an opportunity to do so at meetings with students, faculty, or administrators.

Annual Meetings with Newly Admitted Doctoral Students

The Graduate School invites all newly admitted doctoral students to meet with the Graduate School dean and other staff members over lunch early in the fall semester. At this meeting the dean welcomes the students, discusses the characteristics of doctoral education, and encourages the students to be proactive participants in the graduate culture of their departments.

The Graduate School also gives each student a copy of a *Handbook for Advising Doctoral Students*, a reference booklet distributed to every graduate faculty member. The sixteen chapters of the booklet cover all aspects of advising and mentoring, suggesting a number of good practices departments can adopt, as well as information on financial aid and Graduate School procedures. Giving students their own copies of this handbook enables them to be informed participants in their departmental arrangements for guiding students through the doctoral program.

Guidance for Faculty Members

In addition to mailing the *Handbook for Advising Doctoral Students* to all full-time faculty, the Graduate School also sends it to faculty members whom the Credentials Committee approves for graduate faculty status, thereby linking that status with advising and mentoring.

Plans are underway to organize meetings around the contents of the book with students and faculty in doctoral departments. The Graduate School has presented the *Handbook* as a working document, so the sessions will give faculty and students an opportunity to suggest revisions. The meeting also may provide an incentive for more faculty members to read the booklet.

Once each semester the graduate deans meet with all graduate committee chairpersons to address issues concerning doctoral students. The meetings afford the Graduate School an opportunity to assess the quality of advising and mentoring within departments and to encourage good practices in these areas. At these sessions the Graduate School also distributes updated copies of a manual for doctoral advisers and graduate committee chairs.

Mentoring Minority Students

Supplementing Graduate School initiatives to enhance the mentoring environment is an advising and mentoring program for minority doctoral students—Post-Baccalaureate Program in Liberal Arts and Science—funded by the Provost's office. The program admits minority students in science and quantitative social science disciplines with marginal grade point averages in their bachelor or master's degree programs. These students receive a post-baccalaureate year of counseling in study skills, two graduate courses, and intensive mentoring by assigned mentors in their departments. If students achieve grades of B or better in their courses, they are admitted to the doctoral program and given four years of financial support, as well as ongoing counseling and mentoring. Since its inception in 1984, the program has admitted 124 minority students; of this number thirty have received master's degrees, thirteen are currently Ph.D. candidates and two have received Ph.D. degrees.

Faculty/Student Research Projects

In his capacity as vice-president for research, the Graduate School dean funds a competition for research assistants. These competitions bring together a faculty member and a student on a research project.

Research Mentors Program for New Faculty

Another program funded by the graduate dean in his capacity as vice-president for research is the Research Mentors Program for New Faculty. This program encourages senior faculty to adopt new junior faculty members and mentor them in applying for external grants and preparing manuscripts for publication. For their efforts mentors receive $2,000 that can be used to support their research activities.

Outstanding Graduate Mentor Awards Program

In 1994 the Wayne State University Graduate School inaugurated an Outstanding Graduate Mentor Awards program patterned after one that has been in effect since 1987 at Arizona State University.[10] Through an annual competition open to all full- and part-time faculty members, the Graduate School selects four outstanding graduate mentors—in the natural sciences, social sciences, health sciences, and humanities and arts. Each winner of the award receives an unrestricted grant of $2,000 and a citation signed by the president of the university and the dean of the Graduate School.

Department chairs may nominate candidates by submitting to the selection committee a nominating statement, three nominating letters from current or former advisees of the nominee, and a statement from the nominee accepting the nomination. The selection committee comprises eight faculty members—two from each disciplinary area—and two graduate students. Criteria for evaluating candidates include ability to inspire excellent academic performance from students; professional and ethical conduct toward students; quality of research output as evidenced by publications and/or grants; responsiveness to students' academic and personal needs; history of assisting students in finding academic and financial support; accessibility to students, interpersonal skills with students, and post-degree success of students.

In its first year the competition attracted fifty-two nominations from department chairs and graduate students. Although the Graduate School required only three letters of support from students, fifty past and present students of two nominees sent letters. What they wrote was a testimony to the value students place on strong mentoring activities in their departments. In letter after letter, students stated that their academic success as doctoral students was fostered by the scholarship, leadership, humanity, counsel, advice, partnership, friendship, collegiality, receptiveness, openness, morality, ethics, and concern of their mentors. Nominating letters from departmental chairs and students alike underscored the characteristics of effective mentoring: "Outstanding mentors are faculty who develop both the academic and human potential of their protégés, and the latter flourish and excel when they find mentors who lead them as scholars and respect their humanity."

The Graduate School publishes and distributes to all graduate faculty and students a booklet containing the department chair's nominating statement, excerpts from student nominating letters, and an essay by each award recipient discussing his or her approach to mentoring graduate students. The University plans to hold a graduate mentoring seminar, organized by the Graduate School, at which one or two recipients of the Outstanding Graduate Mentor Award, as well as experts from off campus, will address all master's and Ph.D. advisers and mentors on aspects of mentoring. The booklets will serve as a basis for discussion at this seminar.

Insights

Through this range of programs, the Graduate School has sought to enhance the mentoring environment at Wayne State University. A Graduate School administrator concluded that the results have been very positive: "...Whenever mentoring is part of the interpersonal relationship between faculty and students, or between senior and junior faculty, it contributes to...desirable academic and professional results." Students never object to mentoring, and faculty members who complain do so mainly about the demands it makes on their time. Graduate School initiatives such as the Outstanding Graduate Mentor Program are designed to make the professional and emotional rewards of mentoring more tangible and measurable.

UNIVERSITY OF CALIFORNIA, BERKELEY: BEYOND TRADITIONAL MODES OF MENTORING

Annually, approximately 9,000 graduate students attend the University of California, Berkeley, in 101 graduate programs and 91 doctoral programs. About 5,500 of the 9,000 are doctoral students. One of the Graduate Division's goals in dealing with such a large graduate student population is attempting to socialize graduate students to become professionals in their fields by developing alternative mentoring programs.

In "A Second Look at Mentoring: Some Provocative Thoughts,"[11] Maresi Nerad, Director of Graduate Research in the Graduate Division at UC Berkeley, argues that traditional mentoring depends on personalities, i.e., the "right chemistry" between two people. Traditional mentoring, like friendship, cannot be forced upon students and faculty; if students are unsuccessful in finding a mentor, some students may be left unattended. In current discussions of mentoring, Nerad makes a distinction between an adviser and a mentor. She says that an adviser is responsible for assisting students in selecting programs of study and for making sure that students make adequate progress toward the degree and fulfill all university requirements. A mentor (as defined in most current literature) is a person who takes a novice under his or her wing. The mentor helps the protégé set goals and standards and develop skills; protects the protégé from others in a way that allows room for risk and failure; facilitates the portage's successful entrance into academic and professional circles; and ultimately passes on his or her work to the protégé.[12] Since the responsibility for mentoring, sponsoring, protecting, challenging, role modeling, counseling, and being a friend to a large number of graduate students can be burdensome for a single faculty member, Berkeley's Graduate Division has committed itself to helping departments rethink the advising/mentoring process. Assisting faculty in becoming good advisers and helping departments structure the mentoring process in such a way that mentoring becomes a collective effort for which the entire department, rather than individual faculty members, will be held responsible are key components of the Graduate Division's advising/mentoring model. In such a model, all faculty members advise, but the individual faculty member does not have to shoulder alone the additional burden of individually mentoring a large number of students. Instead, mentoring is an acknowledged responsibility in which everyone participates. Departmental seminars and workshops, rather than an individual faculty mentor, provide all students with the formal and informal knowledge they need to become professionals in their fields.

Strategies developed by the Graduate Division at UC Berkeley to foster both the advising of students by all faculty members and departmental mentoring of graduate students fall into four categories: (1) assist those in the department who provide advising to graduate students and who develop mentoring programs for them; (2) educate graduate students to seek guidance and advice; (3) monitor departmental advising and mentoring; (4) offer support programs for graduate students addressing common needs and targeting special constituents.

Faculty Graduate Advisers. Each faculty graduate adviser receives the *Graduate Adviser's Handbook*, which is prepared and regularly updated by the Graduate Division. This veritable encyclopedia provides information about issues from the beginning to the end of a graduate student's career. Topics covered are admissions; affirmative action; registration, course work, and grading; degrees; petitions; probation and dismissal; financial assistance; academic appointments; exchange programs and study abroad; and campus services for graduate students.

The Graduate Division also holds a graduate advisers meeting each semester to discuss common concerns and responsibilities. Graduate advisers are responsible for assisting students in selecting programs of study, acting on petitions for changing study lists, and maintaining records of their advisees. In addition, the Graduate Division recommends that graduate advisers and other faculty review annually the records of all graduate students in the department and inform the Graduate Division, in writing, if a student is not making adequate progress toward a degree.

Faculty Dissertation Advisers. Annually the Graduate Division invites faculty members and graduate students to a disciplinary forum, e.g., "The View from the Other Side of the Desk" for humanities and social science students. The Graduate Division helps students prepare questions to ask the faculty concerning their advising and mentoring roles, and both students and faculty benefit from the exchange.

Faculty Seminar on Graduate Education. The Graduate Division invites faculty members from selected departments, including the chair and head faculty graduate adviser, graduate students, and administrators, to a monthly invitation research seminar on graduate education. Participants in this seminar discuss the results of the Graduate Division's research on graduate education, and the graduate dean solicits suggestions for further programmatic improvements.

Administrative Staff for Graduate Programs (Graduate Assistants). Graduate Assistants, administrative staff members in the departments who are responsible for serving as liaison between their students and the campus bureaucracy, are among the Graduate Division's most valuable allies in assuring that advising and departmental mentoring take place. For example, the Graduate Division relies on administrative staff to encourage annual meetings between Ph.D. candidates and at least two members of their dissertation committee to review the students' progress before filling out required annual reports on their progress in candidacy.

The Graduate Assistant Advisory Group, which comprises fifteen graduate assistants from a cross section of campus departments, meets monthly with the Graduate Division's director of graduate research. They discuss changes in Graduate Division policy, share departmental concerns, and exchange ideas and resources for effective depart-

mental mentoring programs, and offer suggestions to facilitate cooperation between the Graduate Division and departments.

Members of the Advisory Group also hold "satellite group" meetings, which reach out to all graduate assistants on campus. Representatives from the Advisory Group meet with graduate assistants from a similar campus location to communicate new information, share resources, and solicit for the Graduate Division feedback and ideas from other graduate departments and groups.

To acknowledge and honor the work of the graduate assistants, the Graduate Division has hosted a special celebration—Graduate Assistant Day.

Educate Graduate Students to Seek Advice and Guidance

Graduate students at Berkeley cannot be passive. The Graduate Division encourages students to be informed members of the graduate education community so that they can be their own best advocates, learn how to pace their progress through graduate school in order to finish in a timely fashion, and be creative forces for change in their departments.

Orientation for New Graduate Students. "Nuts and Bolts: Planning Ahead is Good for You" is the title of this session. Graduate Division administrators give new students essential information about graduate education at Berkeley, informing them of ways they can be proactive on their own behalf. In addition, they encourage students to develop a network of mentors (or multiple mentors) and peer mentoring systems. The network mentoring model encourages students to look for several faculty members who can help with different aspects of their development. Students can work with someone as an adviser and also develop a relationship with a faculty member whom they respect as a teacher and with one whom they respect as a researcher. In the peer mentoring model, peers, graduate assistants, and postdoctoral scholars act as mentors to new students and to each other. Sharing information, strategies, and skills, they serve as sounding boards and support networks for one another.

***The Graduate*: A Newsletter**. Articles in this publication for graduate students cover everything students need to know to progress smoothly through graduate school. A piece entitled "The Agenda for First Year Students" has these subtitles: Read, Read, Read; Have Confidence; A Marathon Not a Sprint; The Coursework Crunch; Choosing a Lab; Getting Used to Being a Graduate Student. Other articles are entitled "Choosing Your Major Adviser," "What You Can Expect from Your Graduate Adviser," and "Gearing up for the Qualifying Exam."

Easing the Way: A Guide to Departmental Activities in Support of Graduate Students. As part of the Graduate Division's three-year study of the graduate experience at Berkeley, graduate students in interviews and focus groups mentioned special departmental activities that supported them at various stages of their doctoral programs. Students whose departments did not offer such activities inquired how their departments might adopt similar activities. From this exchange of ideas and a systematic investigation of successful activities, the Graduate Division developed this guide. It contains descriptions of existing activities at all stages of the doctoral program, beginning with recruitment and orientation and ending with dissertation writing and the job search.

Often the activities described in the guide cost little or nothing in staff time or supplies. Included is information on how to go about choosing a dissertation adviser, how to set up mock orals exams, how to organize dissertation writing groups, and how to offer a workshop on presenting a research paper. Through such activities, departments express involvement in and concern for their students' progress and professional goals, i.e., they carry out mentoring activities. The Graduate Division distributes the guide to all departmental graduate student associations, graduate secretaries, and department chairs.

Focus Groups. Monthly meetings with student focus groups provide a forum for Graduate Division administrators to discuss students' concerns and the Division's research findings. Participants in the focus groups have helped the Graduate Division develop many new programs. In addition, the groups serve as interdepartmental peer advising groups.

Monthly Coffee Hour. Not every initiative undertaken by the Graduate Division has been a resounding success. An experimental program of monthly coffee hours for graduate students with the Graduate Division Deans, for example, did not draw large numbers of students.

Monitor Academic Advising and Departmental Mentoring

Annual Report on Progress in Candidacy. To fulfill its responsibilities, the Graduate Division has several vehicles for monitoring academic advising and mentoring. All doctoral students who have advanced to candidacy must meet annually with at least two members of their dissertation committees. This annual review is part of the Graduate Council's efforts to improve the doctoral completion rate and shorten the time it takes to obtain a doctorate. The "Annual Report on Progress in Candidacy in the Doctoral Program" is the form used for the review. It includes sections to be completed by the student before and after meeting with committee members, and sections to be completed by the chair of the dissertation committee. Through this report, the Graduate Division learns from both students and their committees about the student's progress on the dissertation

during the past year, the student's objectives for the next year, the student's timetable for completing the dissertation, and whether the student is making adequate academic progress.

Exit Surveys. Every student receiving a doctoral degree at Berkeley must complete a four-page "Survey of Doctoral Students' Opinion." The Graduate Division conducts an ongoing evaluation of the exit questionnaire's specific questions on advising and mentoring. Students are asked to assess the experience they had with their departments and advisers, as well as their general university experience. The graduate dean then sends a letter to the department reporting on the findings and asking that action be taken in problem areas.

Statistical Analyses. Also conducted by the Graduate Division on an ongoing basis are analyses of completion rates, times-to-degree, and job placement outcomes. These analyses reveal whether students in certain departments consistently have long times-to-degree or high attrition rates, whether they are successful in obtaining professional employment, and whether they received departmental assistance in their job search.

Offer Support Programs for Graduate Students Addressing Common Needs and Special Constituents

Dissertation Writing Workshops. "Practical Strategies for Writing a Dissertation" is the title of a four-hour workshop scheduled several times in the fall semester for doctoral students in the humanities and social sciences and in the spring semester for those in the biological sciences, physical sciences, and professional schools. These workshops, which are limited to 25 participants per session, with spaces assigned on a first-come, first-served basis, are led by a professional writing consultant who received a Ph.D. from Berkeley.

Topics covered in the workshops include where to begin and how to keep going; how to move from research to writing to revising to finishing; practical advice on organizing, outlining, setting practical goals and tasks; showing sections to your adviser. Of all the programs designed to address common needs and special constituents, the dissertation writing workshops are the most important and most helpful for students, as well as the most well attended of the Graduate Division sponsored programs.

Grant Proposal Writing Workshops. The Grant Proposal Advising and Outreach Program offers grant writing workshops and individual grant proposal consultations to graduate students. Among subjects of workshops offered throughout the academic year are how to write a grant proposal, grant writing workshops for women, funding available for students of color, and how to write a grant proposal for dissertation funding.

Placement Workshops. An academic placement counselor in the Career Planning and Placement Center holds an academic job search workshop series for students in all disciplines. These workshops cover topics such as the academic job search; writing curriculum viteas and letters of application; teaching and research at American colleges and universities; preparing for on-campus interviews; and interviewing: making the most of a national convention.

Interdisciplinary Research Retreats. Building on an earlier model from the Social Science Research Council, the Graduate Division and International and Area Studies at UC Berkeley have developed interdisciplinary dissertation workshops. A dozen students who are writing dissertations on related issues but in different disciplines in the social sciences, humanities, and professional schools meet together with three to four faculty members for a three-day, off-campus workshop. Topics chosen for the workshops are intentionally broad and inclusive.

The workshops help young researchers set their work in larger intellectual contexts, recognize the value of previously unfamiliar disciplines, contribute constructively to each other's work, and acknowledge the value of comparative approaches. They relieve the often lonely, isolated experience of the dissertation writing process and, in most cases, create continuing interdisciplinary communities on campus. Graduate students involved have expressed great enthusiasm for these workshops.

Workshops can be organized by the Graduate Division, International and Area Studies, or by different research centers or units throughout the academic year. The workshops also provide a basis for new inter-university collaborations.

Graduate Student Instructor Teaching and Resource Center. The Graduate Division's Graduate Student Instructor (GSI) Teaching and Resource Center oversees the training, supervision, and evaluation of GSIs in all disciplines. To fulfill its mission, the center provides a wide variety of services to train GSIs in effective teaching techniques and classroom management.

Insights

In developing new policies or programs, administrators of the Graduate Division at UC Berkeley consult with their constituents—faculty, students, and staff—and consider their interests and concerns. In addition, the Graduate Division always employs a three-pronged approach when developing new policies or programs. Three critical questions are asked in relation to every policy and program: (1) What do students require for academic success? (2) What support does the faculty need in order to advise well and to mentor collectively? (3) How is the staff to carry out the new policies and programs?

Among the Graduate Division's most successful programs are the dissertation writing workshops, interdisciplinary research retreats, graduate assistant's advisory group, focus groups, placement workshops, and GSI training. As noted above, the monthly coffee hour for graduate students with the deans was less successful. Poor faculty attendance by the end of the semester also limited the effectiveness of the monthly invitational faculty, graduate student, and staff research seminars.

Graduate Division administrators at UC Berkeley foresee greater improvements in faculty mentoring if mentoring and advising should become part of the tenure and promotion evaluation system. The time-consuming duties of teaching, publishing, securing grants, serving in campus administrative positions and in the professional community permit faculty members to be effective advisers and mentors to only a few students. Berkeley's strategy, therefore, has been to supplement the traditional individual mentor model with departmental and Graduate Division activities, seminars, and workshops designed to provide mentoring to all students and to socialize them into their professions.

In Balance Program: Mentoring in a Changing Culture

The Center for Particle Astrophysics, an NSF Science and Technology Center at UC Berkeley, provides an example of how the culture of an organization can be altered to foster mentoring in a changing milieu. At the heart of the center's In Balance Program is a comprehensive approach to creating a conducive work environment for a diverse constituency. Physics and astronomy—the physical sciences in general—are fields dominated by white males. By the late 1980s there were very few women and virtually no minorities at the Center for Particle Astrophysics. Retention of younger male scientists was becoming a problem as they evaluated the lifestyles of their advisers and found a 60-hour work week in the laboratory narrow and unappealing.

Mentors typically model the system in which they were educated, and mentoring usually perpetuates the perspective of the dominant culture. In a culture dominated by traditionally educated white males, others—women, people of color, international students, students from rural communities,— i.e., anyone outside the cultural mainstream, face an unspoken but pervasive demand to assimilate. The need to conform to the imperatives of mainstream cultural dominance—"mono-culturalism"— not only can cause personal pain and stress on women and minorities entering the scientific community but effectively undermines a primary benefit of diversity: the creativity and inspiration that develop out of different ways of thinking.

If the underlying intent is to reap the benefits of diversity and enrich science, there is a need to introduce a broader perspective into mentoring programs in the sciences. An objective of the Center for Particle Astrophysics is that the community itself will reflect a broader educational perspective. Setting and maintaining a tone of cultural inclusiveness is one way to help bring this about. The center's efforts to address the issues of "mono-culturalism," sexual and racial stereotyping, low self-esteem, unhealthy

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levels of competition, and concerns about combining career and family take place under the umbrella of the In Balance Program.

Developed in response to the "chilly climate" in science for women and minorities, the In Balance Program seeks to create a supportive environment, keep young scientists in the field, retain and attract women and minorities, and build an inclusive community. Goals of the program are to raise the level of consciousness with regard to the issues; teach useful skills such as collaborative leadership, conflict resolution, communication, and team building; and develop a useful model for reshaping the culture.

The Education/Outreach component of the Center for Particle Astrophysics is the hub of the In Balance Program and has a range of activities and responsibilities. They produce In Balance community meetings, workshops, retreats, and skills training; supply planning support for participants' projects, speakers, and a reference library; participate in special projects, e.g., a conference on The Changing Culture in Science, and community generated projects; and are responsible for securing funding, participating in the development of content, maintaining quality, and expanding the program.

Using a combination of informal discussions, workshops, retreats, community meetings and events, scientists and staff in the center are exploring issues, problems, or topics of interest. A first step has been to develop an environment that supports open discussion of problems. Issues are discussed within the framework of the community, and people do not regularly separate into special groups. In addition, the center encourages multi-culturalism in a variety of ways: exhibits in the center conference room feature photographs, art, crafts, scientific overheads created by people in the center and the physics department; the observance of various cultural traditions; the development of a planetarium show that presents a multi-cultural view of the search for dark matter; the presentation of a public lecture series that they hope will make astrophysics more accessible to the general public. These efforts are part of the initiative to broaden the educational perspective.

Changes

Since the inception of the In Balance Program there is more open discussion of the culture at all levels of the community. These discussions have heightened awareness of cultural sensitivities and the differing perspectives on the "chilly climate" issues.

Although the larger number of women now present in the Center may not be a result of the In Balance Program (it may be a statistical fluctuation), junior and senior people alike are much more aware and supportive of the need to increase the participation of women and minorities.

In some research groups and among some members of the Center there is a softening of the traditional hierarchical barriers.

Through its summer program the Center has recruited both African-American and Native American students.

There appears to be a quiet pride among some Center members that they are

involved in a community that values people and, however awkwardly, is addressing fundamental human needs.

The goal of having people, particularly women and minorities, pursue their educational and professional goals without added stress has prompted the appointment of an ombudsperson to assure open communication and access to senior scientists and administrators while preserving anonymity.

Continuing Challenges

Ownership by the community is essential to the continuation and success of the In Balance Program. People in the culture must guide its evolution; ideas and solutions cannot be imposed from outside. The exploration and questioning of deeply rooted, often unconscious behaviors and traditions, and the successful harmonizing of conflicting views require commitment and flexibility. Being sensitive and responsive to the level of stress and polarization present in the community has also been very important. Two primary tasks have been to encourage people to express their views and to respond so that they know they are being heard and their opinions considered. Another aspect of the challenge is to include conflicting views about the program, its direction and efficacy, as strategies are developed to change those practices that obstruct the educational and professional goals of Center members.

The In Balance Program is not intended to provide a template for a set of proper responses to a static group of issues, but to function as an evolutionary process to help identify and implement positive responses to changing issues, needs and questions. In addition, the program is an experiment, that so far, has provided some valuable insights for achieving the goal of a diverse, healthy, and productive scientific community.

There are, of course, many problems involved in attempting to change a culture to create a conducive work environment and a diverse constituency. A few of the more easily identified are:

- Translating processes and techniques developed outside the scientific environment that help people recognize and talk about their feelings into language that is familiar and acceptable to those trained in the scientific method is both important and difficult.

- Keeping the momentum going in a voluntary program with meetings scheduled during the normal work day is a challenge. It is hard to fit meetings and workshops into the frenetic pace. Also skills learned in a workshop need to be reinforced by follow-up meetings, or they will not be integrated into life in the laboratory or office.

- A natural aversion to change impedes the program. Critics accuse it of being exclusive, elite, or "touchy-feely." There is also criticism of its

funding in a period of budget cuts. Participants in the In Balance Program work to include both the critics and the issues they raise in community discussions. The goal is to use the information emerging from these interactions to help determine the direction and focus of the program.

Insights

The objectives of the In Balance Program are highly compatible with the need to provide a multi-cultural perspective in the mentoring process. Improving the culture in science—a central goal of the program—is thought to be a key element in attracting and retaining a diverse group of students and providing them with a more fertile ground for success, which is a central goal of mentoring.

The guiding principles of an inclusive community—soften hierarchical boundaries, encourage communication, offer equal involvement to all members of the group in decision making, foster interconnectedness among the groups, replace unhealthy competition with collaboration, and avoid adversarial framing of the issues—also provide a healthy environment for mentoring.

CALIFORNIA STATE UNIVERSITY, FRESNO: INSTITUTIONALIZING MENTORING

At California State University, Fresno, an institution with 18,000 students and 42 graduate programs including one doctoral program, administrators are interested in many aspects of mentoring that ensure quality in the delivery of academic programs. Chief among their concerns are the following five areas:

- Strengthening undergraduate as well as graduate student mentoring. Institutional strengths in mentoring graduate students are influenced by the quality of the undergraduate mentoring programs because students who have had undergraduate mentoring know more about what to expect at the graduate level and can more easily negotiate the transition from undergraduate to graduate status.

- Developing effective programs for mentoring new faculty members. The provision of experienced peer mentoring of new faculty members in instruction, scholarly, and public service functions as well as in adaptation to changing faculty roles and expectations within the university has become increasingly important in the recruitment and retention of quality faculty.

- Addressing mentoring needs of special populations. Special mentoring for members of underrepresented groups: minorities, women, those with disabilities, and non-traditional students often requires consideration of alternative routes of access, communication, and understanding.

- Promoting an environment that stimulates good mentoring practices, including recognition and rewards. A university that values sound mentoring practices must be prepared to recognize and reward good practice in visible and significant ways.

- Evaluating campus mentoring processes. Assessment of sound practices in mentoring students should be indicated through measurable student and program achievements.

Administrators at CSU, Fresno, have developed a number of programs to address the above areas and provide the mentoring and advising that students and even faculty members may require in order to achieve their full potential. A key initiative at

the graduate level has been the adoption and active support of a *Policy Statement: The Mentoring Relationship in Graduate Education*. This policy statement, which has been approved by the faculty, *institutionalizes* mentoring at the university.

In their foreword to the policy statement, the dean of the Division of Graduate Studies and the chair of the University Graduate Committee write:

> We believe that mentoring is a multifaceted process that includes, at various times, the functions of teaching, advising, advocating, sponsoring, and role modeling. Mutual respect and interest, not mutual affection are what gives the mentoring relationship strength.
>
> We also recognize that mentoring cannot be mandated. Even so, we maintain that this type of collegial relationship is the hallmark of an outstanding graduate program. To that end, we hope that this document can be a source of encouragement as well as guidance for those involved in a mentored alliance.

Divided into three major sections, the policy statement outlines the responsibilities of academic units, faculty mentors, and mentored students. The responsibilities thus identified describe elements determined to be essential to the development of successful mentoring relationships. The statement also gives an array of suggestions about how to fulfill each responsibility. A summary of these responsibilities follows:

Responsibilities of Academic Units

- Create a supportive, collegial environment.
- Establish a clearly articulated mentoring policy.
- Encourage faculty mentoring.
- Value diversity in mentoring relationships.
- Provide special support for underrepresented and international students.
- Encourage graduate student development.
- Involve part-time and adjunct faculty in the mentoring process.

- Create mentored opportunities for evening and off-campus students.
- Assess the effectiveness of faculty-mentored activities.

Responsibilities of Mentors

- Ease the undergraduate-to-graduate transition.
- Actively reach out to all students.
- Be aware of mentored students' backgrounds.
- Meet with mentored students regularly.
- Establish a realistic academic plan.
- Give constructive criticism.
- Enhance student verbal skills.
- Ensure that mentored students are apprised of proper ethics.
- Encourage co-authorship and the joint conduct of research.
- Increase mentored students' networking capabilities.
- Direct mentored students to financial resources.
- Utilize campus referral services.
- Provide postgraduate support.

Responsibilities of Mentored Students

- Understand the role of faculty.
- Hold regular and convenient meetings with mentors.
- Follow an established academic plan.
- Share different insights.

- Accept constructive criticism.
- Develop verbal skills.
- Offer suggestions and ideas.
- Demonstrate proper research and professional ethics.
- Co-author and jointly conduct research.
- Establish a collegial network.

Future plans for implementing policy guidelines include the following:

- Incorporation of measurable outcomes of good mentoring practice as an element for consideration in graduate program review procedures. At a minimum, each program will be required to report on the formal activities that it has undertaken to stimulate good mentoring and to assess student and alumni satisfaction with mentoring activities.
- Development of a directory of available faculty mentors.
- Expansion of workshops on the value of mentoring relationships for students and faculty.
- Incorporation of the Mentoring Record into faculty (personnel) files so that it can be appropriately integrated into the promotion and tenure process.

Faculty Mentoring

A proposed Faculty Mentoring Program will extend the benefits of mentoring to yet another level at CSU Fresno. The university has proposed a policy for probationary (tenure-track) faculty that includes a provision for the establishment of a peer mentoring committee within each department for each probationary faculty member.

This mentoring committee will be responsible for designing a "probationary plan" that will outline expectations and criteria to be used in tenure and/or promotion decisions. The mentoring committee also will be responsible for advising the probationary faculty member about the documentation that needs to be provided each year to demonstrate progress toward fulfilling the plan's requirements. In addition, the committee will recommend and review proposed changes to the plan during the probationary period. Using faculty peers as mentors has the potential to help junior faculty members become successful and productive teacher-scholars.

Insights

Through efforts leading to the creation of the policy statement on the mentoring relationship in graduate education and its subsequent implementation, mentoring has been institutionalized on the Fresno campus. The process of institutionalization was developmental; it began slowly with seed grants and grew gradually. The graduate dean plays a pivotal role in mentoring, serving as leader, cajoler, convener, and middle person between faculty and students. Because the dean and key faculty members have been involved in mentoring programs at the undergraduate and graduate levels, mentoring has flourished throughout the university and enhanced the educational continuum from undergraduate to graduate and even faculty member to faculty member. Now faculty accept mentoring as an integral part of their responsibilities. The inclusion of mentoring in the collective bargaining process will also underscore its importance.

IN SUMMARY: MODELS FOR MENTORING PROGRAMS

Graduate Schools interested in enhancing the mentoring of graduate students can find an array of approaches in the seven models presented here. A university could adopt a single program in its entirety or combine initiatives from several programs that are compatible with the institution's culture, needs, and resources.

Common to all of these models is a concern for the welfare of graduate students, their timely progress through graduate school, their socialization into the profession, and their transformation into colleagues. A variety of mentoring styles can be successful, but a characteristic of all successful mentors is the willingness to be present for students, to show students that they care. When individual faculty members cannot mentor all the students who need them, departments and graduate schools need to structure programs, workshops, and seminars that contribute to the progress and professionalization of their graduate students.

Some features of the mentoring programs discussed here are unique to one program; other approaches are common to several. At Syracuse University the mentoring program is distinctive in that it is imbedded in the Future Professoriate Project, an undertaking to train doctoral students for teaching in colleges and universities. Wayne State University and California State University at Fresno are involved in institutionalizing mentoring at their universities, using a variety of initiatives to encourage individual faculty members to consider mentoring central to their responsibilities. Graduate School administrators at the University of California, Berkeley, and the University of Michigan focus more on departmental and institutional programs to foster guidance of graduate students than on the traditional mentoring relationship between a faculty member and a student.

The Mellon Graduate Education Improvement Project and the In Balance Program seek to improve the mentoring environment by changing the academic culture at the departmental level. In the Mellon Project, departmental faculty must conduct a self-study that identifies structures and practices impeding student progress and proposes creative ways to transform these roadblocks into ramps. Initiatives undertaken through the In Balance Program are designed to build an inclusive community with a conducive work environment for a diverse constituency. The objective is to provide faculty and departmental mentoring that gives minority and women graduate students the guidance they need without forcing them to assimilate into the dominant culture.

Activities, Initiatives, Programs

The following activities, initiatives, or programs suggest a range of approaches that graduate schools can use to encourage more effective mentoring by individual faculty members or to improve the overall environment for graduate student development as scholars and professionals.

For Departments

- Schedule periodic visits by graduate deans to departments to give them information about the progress of students through their programs, discuss problems, learn about the graduate program in detail, and explore ways that the graduate school and department can cooperate to strengthen the program.

- Award block grants to departments, which they can use flexibly for any one of a variety of initiatives to facilitate student progress through their graduate programs.

- Require departments to have at least two members of a dissertation committee meet annually with a Ph.D. candidate to discuss the student's progress and, with the student, fill out a report on his or her progress in candidacy.

- Work closely with departmental graduate studies coordinators, relying on them to encourage departments to fulfill their responsibilities to students and to help carry out graduate school policies and programs. Schedule a special day of workshops, open house, and reception in their honor. Constitute a Graduate Studies Coordinator advisory group from a cross section of departments to meet monthly with the appropriate graduate school administrator to discuss changes in graduate school policy, departmental concerns, and ways to facilitate cooperation between the graduate school and departments.

- Report to departments the findings from exit surveys of students receiving doctoral degrees and ask the departments to address problem areas that have been identified.

- Conduct ongoing statistical analyses of completion rates and times-to-degree of students in all departments and communicate those findings to the departments. The information can prompt faculty to ask what they are doing wrong, what they can do differently, and how they can facilitate student progress.

- Produce for each graduate program time-to-degree and completion rates for the same program at a peer institution, send the information to the departments, and

make the data public on campus. This information can heighten awareness of how a department's record compares with that of a peer department at another university and with other departments on campus.

- Undertake departmental reviews every five years that look at student placement; these reviews are important to departments and motivate them to be concerned about the progress and placement of their students.

- Encourage departments to admit only the number of graduate students they can adequately support and mentor.

- Foster network (multiple) mentoring and peer mentoring when appropriate.

- Encourage departments to take a comprehensive approach to creating a conducive work environment for a diverse constituency. To help primarily white male faculty members learn how to be mentors to women and minorities without forcing them to assimilate into the dominant culture, departments can undertake a variety of activities that build an inclusive community.

For Faculty Members

- Develop interdisciplinary workshops and seminars for faculty that begin and sustain a campus-wide conversation on what it means to be a mentor in teaching and how to do it; the seminars provide faculty with specific strategies and methodologies to establish more effective teaching assistant and teaching associate training within the context of their disciplines.

- Engage departmental faculty in conducting a self-study that identifies problem areas in their graduate programs, sets goals, and determines how those goals will be fulfilled. In the process they will become aware of departmental responsibilities for guiding students successfully through the graduate program and into the profession, and the departmental culture will begin to change.

- Publish and distribute to all graduate faculty members handbooks, e.g., *Enhancing the Academic Environment for Doctoral Students*, or *Graduate Adviser's Handbook*, which provide information about advising, mentoring, and all aspects of a graduate student's career and/or help define the expectations of students and the responsibilities of faculty for doctoral education.

- Schedule meetings with faculty members and students to discuss the handbook and suggest revisions.

- Have graduate deans meet once each semester with all graduate committee chairpersons to address issues concerning doctoral students.

- Develop a Faculty Mentoring Program that uses senior faculty members as mentors to help junior faculty members become successful and productive teacher-scholars.

- Fund an annual competition for faculty/student research projects or partnerships.

- Sponsor an Outstanding Graduate Mentor Awards Program. Give monetary awards to the recipients and publish a booklet containing the department chair's nominating statement, excerpts from student nominating letters, and each awardee's essay on mentoring. Distribute the booklet to faculty members and use it as a basis for discussion at a graduate mentoring seminar.

- Meet once a semester with graduate advisers to discuss common concerns and responsibilities for assisting and monitoring graduate student progress.

- Invite faculty members and graduate students to an annual disciplinary forum, "The View from the Other Side of the Desk," where students can ask faculty questions. Both students and faculty learn from the questions asked.

- Invite several faculty members from each department, including the chair and faculty graduate adviser, to a periodic invitational research seminar to discuss the graduate school's research on graduate education.

- Encourage recognition of teaching and mentoring in the promotion and tenure process. Accepting mentoring as part of the collective bargaining process at institutions where that process exists will underscore its importance.

For Students

- Publish and distribute to all new students the same handbooks on doctoral education that faculty members receive.

- Invite all newly admitted doctoral students to meet with the Graduate School dean and other staff members, discuss the characteristics of doctoral education with the students, and encourage them to be active participants in the graduate culture of their departments.

- Publish a newsletter for graduate students with articles on everything they need to know to progress smoothly through graduate school.

- Publish a guide to special departmental activities that support graduate students at various stages of their doctoral programs.

- Meet monthly with graduate student focus groups to discuss student concerns and the graduate school's research findings.

- Hold regular meetings with student groups to get their perspectives on how departments work and to instruct students on the skills and issues of importance to their future.

- Require Ph.D. candidates to meet once a year with at least two members of their dissertation committee to review the students' progress and, with the committee members, to fill out a report on their progress toward the degree.

- Develop a special mentoring program for minority doctoral students.

- Invite graduate students and faculty members to an annual disciplinary forum, "The View from the Other Side of the Desk," and help students prepare questions to ask of the faculty.

- Have all students receiving doctoral degrees complete exit surveys, asking them to assess the experience they had with their departments.

- Offer programs addressing common needs and special constituents: dissertation writing workshops, grant proposal writing workshops, academic publishing workshops, placement workshops, interdisciplinary research retreats, summer research opportunity programs for underrepresented undergraduates, and a wide of variety of services to teaching assistants through the teaching center.

For All Constituents

- To institutionalize mentoring at a university, the graduate school and graduate faculty council or committee can develop, adopt, and actively support a policy statement on the mentoring relationship in graduate education. This policy statement should identify the responsibilities of academic units, mentors, and students and give each constituency an array of suggestions about how to fulfill its responsibilities.

Getting Started

Although large external grants enable institutions to undertake dramatic initiatives in mentoring, money is not essential to change. Graduate deans can interact directly with faculty across disciplines and stimulate a group of interested faculty members to

think about mentoring and support good mentoring in their departments. Every graduate school has an obligation to itself, to the academy, and to the wider community to articulate goals and communicate to the faculty their seriousness about these goals, e.g., timely completion of the degree.

When agreement over goals is lacking, the graduate school has to negotiate its expectations with departments, reach a rapprochement with them, and develop a set of strategies to achieve the goals. Graduate schools must be proactive; deans need to meet with department chairs and graduate faculty, visit departments, and provide them with information about their students' progress.

One participant in the Idea Exchange noted, "We need to have a wider conception of mentoring. We must encourage the notion that the department is a place where people of different statuses are interacting for the general good, a place where faculty and students have a reciprocal stake in achieving departmental goals. We should try to introduce into the university and departmental culture the notion of caring."

Through the varied programs and activities enumerated above, graduate schools can catalyze a campus-wide conversation on mentoring. Changing the academic and departmental culture from one of little concern for graduate students—a sink or swim on your own attitude—to one of caring about their welfare, progress, and development can be gradual. From small beginnings with a few faculty members in a few departments, change can spread outward in ever widening circles.

Graduate schools may choose to develop a variety of programs to encourage traditional faculty/student mentoring relationships as well as departmental/graduate school programs to provide all students with the formal and informal knowledge they need to become professionals in their fields. Whatever the strategy, graduate school initiatives can inspire an awareness among faculty members of their responsibilities for the intellectual and human aspects of graduate education.

Endnotes:

[1] *Webster's Third New International Dictionary* (Springfield, Mass.: Merriam-Webster Inc. Publishers, 1981).

[2] Michael Cusanovich and Martha Gilliland, "Mentoring: The Faculty-Graduate Student Relationship," *CGS Communicator*, May-June 1991, 1.

[3] Morris Zelditch, "Mentor Roles" (*Proceedings of the 32nd Annual Meeting of the Western Association of Graduate Schools*, Tempe, Arizona, 16-18 March 1990), 11.

[4] Richard S. Kay, "A Definition for Developing Self-Reliance," *Mentoring: Developing Successful New Teachers*, ed. Theresa M. Bey and C. Thomas Holmes (Reston: Association of Teacher Educators, 1990), 26-27.

[5] *Improving the Climate for Women Graduate Students through Quality Mentoring at the University of Minnesota* (Minneapolis: The Coalition of Women Graduate Students, 1993), 21-22.

[6] Amy Cole, "A Call for More Active Mentoring," *The Graduate Post*, Spring 1994, 11.

[7] The following information about the Research Partnership Program appeared in Susan S. Lipschutz, "Towards Independent Scholarship: Research Partnerships in Doctoral Education," *Rackham Reports* (1989-90), 62-63.

[8] Lipschutz, "Towards Independent Scholarship," 64-65.

[9] Small and large are defined in terms of entering cohorts of students in programs discussed in William G. Bowen & Neil L. Rudenstine. *In Pursuit of the Ph.D.* (Princeton: Princeton University Press, 1992), 142-143.

[10] In 1987 the Arizona State University Foundation and Graduate College established the Outstanding Graduate Mentor Award and since that time have recognized annually one or more outstanding mentors of graduate students. The Graduate College and the ASU Foundation publish each awardee's essay on mentoring for distribution to the campus and others interested in graduate education, and the ASU Foundation gives each recipient a cash award of $3,000.

[11] Maresi Nerad, "A Second Look at Mentoring: Some Provocative Thoughts" (Talk presented at the Systemwide Graduate Division Conference, Monterey, California, 13 November 1990).

[12] Roberta Hall and Bernice Sandler, "Academic Mentoring for Female Students and Faculty: A New Look at an Old Way to Get Ahead," 1983.

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